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Original Article

Education Section

Relationship of Lifestyle with Academic Achievement in Nursing Students

MOHAMMAD HEIDARI[1], MARZIEH BORJIAN BORUJENI[2], MANSUREH GHODUSI BORUJENI[3], MINA SHIRVANI[4]

ABSTRACT

Introduction: A healthy lifestyle is one of the main factor in maintaining the health of people in society. With regard to the role of youth and students in public health, they must complete and follow a training program on lifestyle related factors. One of the main aim of the training centres is to improve the academic achievement of students.

Aim: This study was designed to determine the correlation of lifestyle with academic achievement in nursing students.

Materials and Methods: This was a cross-sectional study, wherein all nursing students of School of Borujen Nursing were selected by census sampling. Data gathering tool was Walker's lifestyle questionnaire which was modified for the purpose of the study. To evaluate the educational status of students, final grade point average was considered as an indicator of academic achievement. To analyze the data, SPSS version 16.0, and descriptive and analytical tests were used.

Results: The results indicated that most subjects (61.01%) displayed moderate levels of lifestyle. Pearson's correlation coefficient showed the significant positive relationship between lifestyle and academic achievement (p=0.03 and r=0.628).

Conclusion: To improve the academic achievement of students, in addition to the cognitive abilities-perception, their lifestyle should also be considered. Therefore, it is suggested to incorporate lifestyle education in the curriculum of nursing students so as to improve their lifestyle.

Keywords: Life style behaviours, Health related behaviour, Grade point average-Educational status, Walker's lifestyle questionnaire

INTRODUCTION

People's behaviour in the society especially their health related and lifestyle behaviour have been neglected to some extent in Iranian society [1]. Many research works show that people choosing healthy lifestyle exhibit less risky behaviours. Healthy lifestyle consists of a set of individual's choices in life situations and these choices affect the person's health [2,3]. Lifestyle is influenced by culture, religion, economic and social status, beliefs and notions [4]. Childhood and family education also have an important impact in shaping the lifestyle of people [5]. Lifestyle remains unchanged during the lifetime unless deep rooted beliefs are changed by moderation or psychiatry [6,7].

Although belief in lifestyle and health is found in the initial years of life, certain behaviours of lifestyle are experienced during the university years [8]. Students represent a homogenous and accessible population of the society who live under relatively healthy conditions. Studies show low mobility of students, especially students living in dormitories is on the rise. This reduces the bias resulting from the impact of disease on health behaviours [9]. In this period, changes in dietary habits and behaviours of students takes place [10]. Hence, taking into account the fact that the lifestyle is among the most determining factors of health, the students must follow a codified academic program with respect to lifestyle related issues [11].

Implementation of academic program for students, requires actual knowledge of the variables affecting the terms and conditions of their lives [12]. In every educational system, the educational performance level is one of the success indexes in scientific activities [13,14]. The results of research work demonstrated that in addition to educational structure and content of courses, various factors including lifestyle, cognitive abilities, emotions, and personal and familial traits play major role in educational performance level [15]. The present study was aimed to assess the relationship between lifestyle and academic achievement of students, with the hypothesis that quality of life is directly proportional to the academic achievement of nursing students.

MATERIALS AND METHODS

This cross-sectional study was conducted on students at School of Borujen Nursing, Shahrekord University of Medical Sciences. The participants in this study were all nursing students (118 students) of Borujen Nursing and Midwifery in February 2015 to July 2015, except for new students of semester one. The inclusion criteria of the research examinees were: at least one semester of education in the university; and lack of diagnosed physical mental disease. The exclusion criteria were: Guest students or students who had below-12 GPA for some specific reasons (such as the death of a family member or illness); and, students who had taken educational leave. After selection of qualified research examinees and acquisition of their written consent forms, the researcher read out the questions and recorded their responses in the questionnaire without any modification.

This study was approved by the Ethics Committee (ethical code: 93-9-20) of the Shahrekord University of Medical Sciences. Information of the present research was gathered using Susan Walker's health promoting lifestyle profile [16] which was modified by adding demographic questions and few health related behaviour questions. Also, in order to assess the academic status of students, Grade Point Average (GPA) of the last semester was evaluated after acquiring it from the educational department of the nursing school. Walker's health promoting lifestyle profile questionnaire consists of 52 questions for evaluation of physical activities, dietary habits, and safety habits. In the study by Mohammadi Zeidi I et al., the internal reliability of the questionnaire was obtained as 82% and its content validity was also approved by the specialists [17]. In the tool, eight questions were about amount of physical activity, nine questions belonged to dietary habits and three questions were associated with the status of students' health-related behaviours such as smoking, use of a seatbelt and tooth brushing. All questions were designed with responses in four choice Likert scale (Never, Sometimes, Often, and Always). Additionally, two questions were included concerning height and weight of students to measure their Body Mass Index

(BMI). For classification of mass body attribute, the standard BMI classification proposed by World Health Organization (WHO) was used, in which BMI<18.5 is regarded as "thinness", 18.5<BMI<24.9 as "normal range", and 30<BMI<34.9 as "obese class I" [18].

Questionnaire scoring pattern were as follows: all questions related to physical activity and dietary habits and two out of three questions of health related behaviours would obtain scores 1 to 4 according to the above mentioned Likert scale (Never=1, Sometimes=2, Often=3, and Always=4). For the question concerning smoking, the scoring was vice versa (Never=4, Sometimes=3, Often=2, and Always=1). Finally, the scores of the three sections of the questionnaire were added to determine the total lifestyle score for each examinee. Total scores of lifestyle and three sections of the questionnaire were categorized in three groups of poor, moderate, and good. The lifestyle scores between 33 and 43 were regarded as "poor", between 44 and 54 as "moderate" and those in the range 55-65 as "good". The scores in three sections i.e., physical activity, dietary habits and health-related behaviours were categorized as follows: for the variable of physical activity; scores between 8 and 15 were regarded as "poor", between 16 and 22 as "moderate", and between 23 and 29 as "good". Regarding the dietary habits, the scores in the range 14-20 represented "poor", scores in the range 21-26 as "moderate", and 27-33 as "good". For health related behaviours variable, the score ranging from 4 to 6 represented "poor", from 7 to 9 "moderate", and 10 to 12 "good" [19].

STATISTICAL ANALYSIS

In the present study, the validity of the above mentioned questionnaire was verified using Cronbach's Alpha coefficient. For this purpose, a pilot study was conducted on 30 students. Cronbach's alpha coefficient for Walker's lifestyle profile was reported equal to 0.90 using SPSS software version 16.0. Descriptive statistical methods were used for adjustment of tables. The sampling of the present study lasted for about four months.

RESULTS

The results of data analysis showed that most students (59.3%) were in the 21-24 age group. A total of 56.8% of research examinees were females and the rest 43.2% were males. Most of the participants (90.7%) were single. Other demographic information regarding the participants is shown in [Table/Fig-1]. In addition, based on the acquired results, most students with GPA below 14 (55.55%) and also in the range of 14 to 16 (47.16%) had poor lifestyles whereas 40.81% of them with GPAs in the range of 16-18 had moderate lifestyle and most of them with GPA equal and greater than 18 had good lifestyles [Table/Fig-2]. According to results of Pearson's correlation coefficient, a positive and significant relationship was observed between lifestyle and academic achievement (r=0.628 and p=0.03).

Level Variable	Poor N (%)	Moderate N (%)	Good N (%)
Lifestyle	27 (22.88%)	72 (61.01%)	19 (16.10%)
Physical activity	55 (46.61%)	51 (43.22%)	12 (10.16%)
Diet	31 (26.27%)	64 (54.23%)	23(19.49%)
Safety habits	8 (6.77%)	48 (40.67%)	62 (52.54%)

[Table/Fig-1]: Frequency distribution and lifestyle, physical activity, diet, and safety habits of the students.

Lifestyle		Poor 33-43	Moderate 44-54	Good 55-65
		N (%)	N (%)	N (%)
Grade Point Average (GPA)	<14	5(55.55%)	3(33.33%)	1(11.11%)
	14-16	25(47.16%)	20(37.73%)	8(15.09%)
	16-18	15(30.61%)	20(40.81%)	14(28.57%)
	≥ 18	0	2(2.57%)	5(71.42%)

[Table/Fig-2]: Frequency distribution of the lifestyle and GPA of the students.

DISCUSSION

Research results manifested that a remarkable percentage of students' lifestyle (61.01%) can be classified in the moderate level. Pecker K and Bermek G had also reached the conclusion in their research on freshman dental students (111 students). The overall health promoting lifestyle behaviours among these students were at a moderate level, indicating that they often engaged in health-promoting behaviours which confirm the findings of the present study [20].

Educational experience influences certain aspects of personality and lifestyle of students such that the students not only gain more knowledge and information following graduation from university but also get more socially transformed, experienced and efficient. The lifestyle of 22.88% of students was evaluated as poor, which is in alignment with the results of the study carried out by Mazurek Melnyk B et al., in their study with 93 health sciences students. They concluded that students with unhealthy lifestyle are at high risk for depression, anxiety and unhealthy behaviours, which could be averted through screening and early evidence based interventions [21].

Based on the results of the present research, majority of students exhibited a poor level of physical activity, which matches with the findings of the study by Nola IA et al., Eating and lifestyle habits of first (n=169) and sixth (n=272) year students, aged 18 to 26 years, attending a Medical School in Zagreb, were compared related to the years of their study. The two studies showed non healthy eating and lifestyle behaviour among medical school students [22]. In another study on 470 university students, by Garrusi B et al., the level of physical activity of students was reported as poor [23]. The condition of physical activity is not appropriate in the study conducted on US students either [24].

In the present study, 31 students did not have proper dietary habits, which is in accordance with the study by Dute DJ et al., in their literature review; they found that most students do not have satisfactory nutritional status [25]. More than half of students (52.54%) were in good condition in terms of safety habits in alignment with the findings of the research by Mishra A et al., [26]. Nowadays, academic achievement greatly matters in higher education system and recognition of the factors associated with educational performance serves as a robust instructional means [27].

The results of the present study indicated that most students with GPAs below 14 (55.55%) and in the range of 14-16 (47.16%) had poor lifestyles whereas 40.81% of those with GPAs between 16 and 18 had moderate lifestyle and 71.42% of the students with GPAs equal or greater than 18 had good lifestyles. Eide R et al., also states that the lifestyle chosen by the person depends on the accessible life opportunities such as academic achievement. Students who undergo academic decline are more likely to tend to negative behaviours and would inflict damages to themselves and the society [28]. The results of the study by Lopes E et al., were in line with present research findings [29].

Based on Pearson's correlation coefficient, a positive and significant relationship was observed between lifestyle and academic achievement (p=0.03, r=0.628). Results of the study by Francois T and Shephard R are also consistent with our results [30]. Luftenegger M et al., also inferred that progress motivation and academic achievement affects behavioural planning and lifestyle of individuals [31]. The relationship between lifestyle and academic achievement at different educational levels must be evaluated in future studies.

CONCLUSION

Taking into account the results of the present research and other analogous studies, healthy lifestyle education to students with effective steps can be taken to improve the academic achievement. Accordingly, incorporating the concept of lifestyle promotion in the syllabus of universities will help students, to effectively and efficiently

play role in the development of their society. In order to raise positive changes in dietary habits, development of health education programs focusing on regular physical activity is recommended.

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PARTICULARS OF CONTRIBUTORS:
1. Lecturer, Department of Nursing, School of Nursing and Midwifery, Shahrekord University of Medical Sciences, Shahrekord, Iran.
2. M.Sc. Student, Department of Nursing, School of Nursing and Midwifery, Iran University of Medical Sciences, Tehran, Iran.
3. Lecturer, Department of Nursing, Abadeh Medical Sciences Branch, Islamic Azad University, Abadeh, Iran.
4. Lecturer, Department of Nursing, Borujen Nursing Faculty, Shahrekord University of Medical Sciences, Shahrekord, Iran.

NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:
Dr. Mansureh Ghodusi Borujeni,
Lecturer, Department of Nursing, Abadeh Branch, Islamic Azad University, Sahid Chamran Blvd, Abadeh, Fars Province, Iran.
E-mail: mghodosi@iauabadeh.ac.ir

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